

**ENTERED**

1600

**RAW SEQUENCE LISTING**

DATE: 02/14/2003

PATENT APPLICATION: US/09/142,524C

TIME: 07:04:08

**RECEIVED**

FEB 19 2003

TECH CENTER 1600/2900

Input Set : N:\efs\09142524\SPO-103\_ST25\_2sub.txt  
 Output Set: N:\CRF4\02142003\I142524C.raw

5 <110> APPLICANT: Sone, Toshio  
 7 Kume, Akinori  
 9 Dairiki, Kazuo  
 11 Iwama, Akiko  
 13 Kino, Kohsuke  
 17 <120> TITLE OF INVENTION: Peptide-Based Immunotherapeutic Agent for Treating Allergic Diseases  
 21 <130> FILE REFERENCE: SPO-103  
 25 <140> CURRENT APPLICATION NUMBER: US 09/142,524C  
 27 <141> CURRENT FILING DATE: 1998-09-09  
 31 <150> PRIOR APPLICATION NUMBER: PCT/JP97/00740  
 33 <151> PRIOR FILING DATE: 1997-03-10  
 37 <160> NUMBER OF SEQ ID NOS: 174  
 41 <170> SOFTWARE: PatentIn version 3.1  
 45 <210> SEQ ID NO: 1  
 47 <211> LENGTH: 80  
 49 <212> TYPE: PRT  
 51 <213> ORGANISM: Cryptomeria japonica  
 55 <400> SEQUENCE: 1  
 57 Met Lys Val Thr Val Ala Phe Asn Gln Phe Gly Pro Asn Arg Arg Val  
 58 1 5 10 15  
 61 Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly Arg Arg Ile Asp  
 62 20 25 30  
 65 Ile Phe Ala Ser Lys Asn Phe His Leu Gln Lys Asn Thr Ile Gly Thr  
 66 35 40 45  
 69 Gly Arg Arg Ile Ser Leu Lys Leu Thr Ser Gly Lys Ile Ala Ser Arg  
 70 50 55 60  
 73 Arg Val Asp Gly Ile Ile Ala Ala Tyr Gln Asn Pro Ala Ser Trp Lys  
 74 65 70 75 80  
 77 <210> SEQ ID NO: 2  
 79 <211> LENGTH: 105  
 81 <212> TYPE: PRT  
 83 <213> ORGANISM: Cryptomeria japonica  
 87 <400> SEQUENCE: 2  
 89 Met Lys Val Thr Val Ala Phe Asn Gln Phe Gly Pro Asn Arg Arg Val  
 90 1 5 10 15  
 93 Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly Arg Arg Ile Asp  
 94 20 25 30  
 97 Ile Phe Ala Ser Lys Asn Phe His Leu Gln Lys Asn Thr Ile Gly Thr  
 98 35 40 45  
 101 Gly Arg Arg Trp Lys Asn Asn Arg Ile Trp Leu Gln Phe Ala Lys Leu  
 102 50 55 60  
 105 Thr Gly Phe Thr Leu Met Gly Arg Arg Leu Lys Met Pro Met Tyr Ile  
 106 65 70 75 80

## RAW SEQUENCE LISTING

DATE: 02/14/2003

PATENT APPLICATION: US/09/142,524C

TIME: 07:04:08

Input Set : N:\efs\09142524\SPO-103\_ST25\_2sub.txt

Output Set: N:\CRF4\02142003\I142524C.raw

```

109 Ala Gly Tyr Lys Thr Phe Asp Gly Arg Arg Val Asp Gly Ile Ile Ala
110                85                90                95
113 Ala Tyr Gln Asn Pro Ala Ser Trp Lys
114                100                105
117 <210> SEQ ID NO: 3
119 <211> LENGTH: 134
121 <212> TYPE: PRT
123 <213> ORGANISM: Cryptomeria japonica
127 <400> SEQUENCE: 3
129 Met Lys Val Thr Val Ala Phe Asn Gln Phe Gly Pro Asn Arg Arg Val
130 1                5                10                15
133 Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly Arg Arg Ile Asp
134                20                25                30
137 Ile Phe Ala Ser Lys Asn Phe His Leu Gln Lys Asn Thr Ile Gly Thr
138                35                40                45
141 Gly Arg Arg Trp Lys Asn Asn Arg Ile Trp Leu Gln Phe Ala Lys Leu
142                50                55                60
145 Thr Gly Phe Thr Leu Met Gly Arg Arg Pro Leu Trp Ile Ile Phe Ser
146 65                70                75                80
149 Gly Asn Met Asn Ile Lys Leu Lys Met Pro Met Tyr Ile Ala Gly Tyr
150                85                90                95
153 Lys Thr Phe Asp Gly Arg Arg Ala Glu Val Ser Tyr Val His Val Asn
154                100                105                110
157 Gly Ala Lys Phe Ile Arg Arg Val Asp Gly Ile Ile Ala Ala Tyr Gln
158                115                120                125
161 Asn Pro Ala Ser Trp Lys
162                130
165 <210> SEQ ID NO: 4
167 <211> LENGTH: 31
169 <212> TYPE: PRT
171 <213> ORGANISM: Cryptomeria japonica
175 <400> SEQUENCE: 4
177 Ile Phe Ser Lys Asn Leu Asn Ile Lys Leu Asn Met Pro Leu Tyr Ile
178 1                5                10                15
181 Ala Gly Asn Lys Arg Arg Phe Ile Lys Arg Val Ser Asn Val Ile
182                20                25                30
185 <210> SEQ ID NO: 5
187 <211> LENGTH: 31
189 <212> TYPE: PRT
191 <213> ORGANISM: Cryptomeria japonica
195 <400> SEQUENCE: 5
197 Ser Ser Gly Lys Asn Glu Gly Thr Asn Ile Tyr Asn Asn Asn Glu Ala
198 1                5                10                15
201 Phe Lys Val Glu Arg Arg Phe Ile Lys Arg Val Ser Asn Val Ile
202                20                25                30
205 <210> SEQ ID NO: 6
207 <211> LENGTH: 12
209 <212> TYPE: PRT
211 <213> ORGANISM: Cryptomeria japonica

```

## RAW SEQUENCE LISTING

DATE: 02/14/2003

PATENT APPLICATION: US/09/142,524C

TIME: 07:04:08

Input Set : N:\efs\09142524\SPO-103\_ST25\_2sub.txt

Output Set: N:\CRF4\02142003\I142524C.raw

```

215 <400> SEQUENCE: 6
217 Ile Ser Leu Lys Leu Thr Ser Gly Lys Ile Ala Ser
218 1 5 10
221 <210> SEQ ID NO: 7
223 <211> LENGTH: 9
225 <212> TYPE: PRT
227 <213> ORGANISM: Cryptomeria japonica
231 <400> SEQUENCE: 7
233 Phe Ile Lys Arg Val Ser Asn Val Ile
234 1 5
237 <210> SEQ ID NO: 8
239 <211> LENGTH: 17
241 <212> TYPE: PRT
243 <213> ORGANISM: Cryptomeria japonica
247 <400> SEQUENCE: 8
249 Glu Glu Tyr Leu Ile Leu Ser Ala Arg Asp Val Leu Ala Val Val Ser
250 1 5 10 15
253 Lys
257 <210> SEQ ID NO: 9
259 <211> LENGTH: 15
261 <212> TYPE: PRT
263 <213> ORGANISM: Cryptomeria japonica
267 <400> SEQUENCE: 9
269 Lys Ser Met Lys Val Thr Val Ala Phe Asn Gln Phe Gly Pro Asn
270 1 5 10 15
273 <210> SEQ ID NO: 10
275 <211> LENGTH: 32
277 <212> TYPE: PRT
279 <213> ORGANISM: Cryptomeria japonica
283 <400> SEQUENCE: 10
285 Glu Glu Tyr Leu Ile Leu Ser Ala Arg Asp Val Leu Ala Val Val Ser
286 1 5 10 15
289 Lys Arg Arg Met Lys Val Thr Val Ala Phe Asn Gln Phe Gly Pro Asn
290 20 25 30
293 <210> SEQ ID NO: 11
295 <211> LENGTH: 20
297 <212> TYPE: PRT
299 <213> ORGANISM: Cryptomeria japonica
303 <400> SEQUENCE: 11
305 Ile Phe Ser Lys Asn Leu Asn Ile Lys Leu Asn Met Pro Leu Tyr Ile
306 1 5 10 15
309 Ala Gly Asn Lys
310 20
313 <210> SEQ ID NO: 12
315 <211> LENGTH: 20
317 <212> TYPE: PRT
319 <213> ORGANISM: Cryptomeria japonica
323 <400> SEQUENCE: 12
325 Ser Ser Gly Lys Asn Glu Gly Thr Asn Ile Tyr Asn Asn Asn Glu Ala

```

## RAW SEQUENCE LISTING

DATE: 02/14/2003

PATENT APPLICATION: US/09/142,524C

TIME: 07:04:08

Input Set : N:\efs\09142524\SPO-103\_ST25\_2sub.txt

Output Set: N:\CRF4\02142003\I142524C.raw

```

326 1                5                10                15
329 Phe Lys Val Glu
330                20
333 <210> SEQ ID NO: 13
335 <211> LENGTH: 13
337 <212> TYPE: PRT
339 <213> ORGANISM: Cryptomeria japonica
343 <400> SEQUENCE: 13
345 Val Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly
346 1                5                10
349 <210> SEQ ID NO: 14
351 <211> LENGTH: 9
353 <212> TYPE: PRT
355 <213> ORGANISM: Cryptomeria japonica
359 <400> SEQUENCE: 14
361 Ser Ile Lys Arg Val Ser Asn Val Ile
362 1                5
365 <210> SEQ ID NO: 15
367 <211> LENGTH: 15
369 <212> TYPE: PRT
371 <213> ORGANISM: Cryptomeria japonica
375 <220> FEATURE:
377 <221> NAME/KEY: MISC_FEATURE
379 <222> LOCATION: (1)..(15)
381 <223> OTHER INFORMATION: Cryj1 peptide, Figure 1, Row 1
385 <400> SEQUENCE: 15
387 Asp Asn Pro Ile Asp Ser Cys Trp Arg Gly Asp Ser Asn Trp Ala
388 1                5                10                15
391 <210> SEQ ID NO: 16
393 <211> LENGTH: 15
395 <212> TYPE: PRT
397 <213> ORGANISM: Cryptomeria japonica
401 <220> FEATURE:
403 <221> NAME/KEY: MISC_FEATURE
405 <222> LOCATION: (1)..(15)
407 <223> OTHER INFORMATION: Cryj1 peptide, Figure 1, Row 2
411 <400> SEQUENCE: 16
413 Ser Cys Trp Arg Gly Asp Ser Asn Trp Ala Gln Asn Arg Met Lys
414 1                5                10                15
417 <210> SEQ ID NO: 17
419 <211> LENGTH: 15
421 <212> TYPE: PRT
423 <213> ORGANISM: Cryptomeria japonica
427 <220> FEATURE:
429 <221> NAME/KEY: MISC_FEATURE
431 <222> LOCATION: (1)..(15)
433 <223> OTHER INFORMATION: Cryj1 peptide, Figure 1, Row 3
437 <400> SEQUENCE: 17
439 Asp Ser Asn Trp Ala Gln Asn Arg Met Lys Leu Ala Asp Cys Ala

```

## RAW SEQUENCE LISTING

DATE: 02/14/2003

PATENT APPLICATION: US/09/142,524C

TIME: 07:04:08

Input Set : N:\efs\09142524\SPO-103\_ST25\_2sub.txt

Output Set: N:\CRF4\02142003\I142524C.raw

```

440 1                5                10                15
443 <210> SEQ ID NO: 18
445 <211> LENGTH: 15
447 <212> TYPE: PRT
449 <213> ORGANISM: Cryptomeria japonica
453 <220> FEATURE:
455 <221> NAME/KEY: MISC_FEATURE
457 <222> LOCATION: (1)..(15)
459 <223> OTHER INFORMATION: Cryj1 peptide, Figure 1, Row 4
463 <400> SEQUENCE: 18
465 Gln Asn Arg Met Lys Leu Ala Asp Cys Ala Val Gly Phe Gly Ser
466 1                5                10                15
469 <210> SEQ ID NO: 19
471 <211> LENGTH: 15
473 <212> TYPE: PRT
475 <213> ORGANISM: Cryptomeria japonica
479 <220> FEATURE:
481 <221> NAME/KEY: MISC_FEATURE
483 <222> LOCATION: (1)..(15)
485 <223> OTHER INFORMATION: Cryj1 peptide, Figure 1, Row 5
489 <400> SEQUENCE: 19
491 Leu Ala Asp Cys Ala Val Gly Phe Gly Ser Ser Thr Met Gly Gly
492 1                5                10                15
495 <210> SEQ ID NO: 20
497 <211> LENGTH: 15
499 <212> TYPE: PRT
501 <213> ORGANISM: Cryptomeria japonica
505 <220> FEATURE:
507 <221> NAME/KEY: MISC_FEATURE
509 <222> LOCATION: (1)..(15)
511 <223> OTHER INFORMATION: Cryj1 peptide, Figure 1, Row 6
515 <400> SEQUENCE: 20
517 Val Gly Phe Gly Ser Ser Thr Met Gly Gly Lys Gly Gly Asp Leu
518 1                5                10                15
521 <210> SEQ ID NO: 21
523 <211> LENGTH: 15
525 <212> TYPE: PRT
527 <213> ORGANISM: Cryptomeria japonica
531 <220> FEATURE:
533 <221> NAME/KEY: MISC_FEATURE
535 <222> LOCATION: (1)..(15)
537 <223> OTHER INFORMATION: Cryj1 peptide, Figure 1, Row 7
541 <400> SEQUENCE: 21
543 Ser Thr Met Gly Gly Lys Gly Gly Asp Leu Tyr Thr Val Thr Asn
544 1                5                10                15
547 <210> SEQ ID NO: 22
549 <211> LENGTH: 15
551 <212> TYPE: PRT
553 <213> ORGANISM: Cryptomeria japonica

```

**VERIFICATION SUMMARY**

DATE: 02/14/2003

PATENT APPLICATION: US/09/142,524C

TIME: 07:04:09

Input Set : N:\efs\09142524\SPO-103\_ST25\_2sub.txt

Output Set: N:\CRF4\02142003\I142524C.raw